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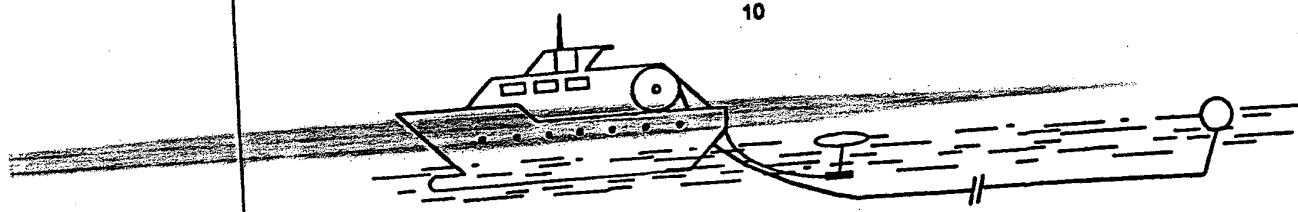
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(54) Title: MARINE SEISMIC ACQUISITION SYSTEM AND METHOD

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(57) Abstract

A method and system for performing a marine seismic survey is described, including towing at least one seismic streamer comprising a plurality of hydrophones distributed at average intervals of not more than 500 cm therealong in the water over the area to be surveyed; directing acoustic signals down through the water and into the earth beneath; receiving with the hydrophones seismic signals reflected from strata in the earth beneath the water; digitizing the output of each hydrophone separately; and filtering the output to reduce the noise present in the output and to generate a signal with a reduced noise content wherein the filtering process uses as further input the digitized output of at least one nearby hydrophone. The filtering is applied to single sensor recordings prior to group-forming and thus able to detect and reduce coherent noise with a coherency length of 20 meters or less. It reduces noise such as streamer or bulge noise.

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